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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/007,493	11/13/2001	Hiraku Yamamoto	214455	2264
23460	7590	09/14/2004		
LEYDIG VOIT & MAYER, LTD TWO PRUDENTIAL PLAZA, SUITE 4900 180 NORTH STETSON AVENUE CHICAGO, IL 60601-6780			EXAMINER EGAN, BRIAN P	
			ART UNIT 1772	PAPER NUMBER

DATE MAILED: 09/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/007,493

Applicant(s)

YAMAMOTO ET AL.

Examiner

Brian P. Egan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 June 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 5,9 and 10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 5,9 and 10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Adamko et al. (#5,948,517).

Adamko et al. teach a silicone free release film along with an adhesive layer (see Abstract; Col. 3, lines 4-6) wherein the release liner comprises an ethylene/alpha olefin copolymer (Col. 2, lines 46-48). The alpha olefin component of the copolymer is an alpha olefin having between 3 and 10 carbon atoms – specifically selected from the group consisting of butene, hexene, and octene (Col. 2, lines 49-51) – and is in the amount of 0.01 to 10% of the copolymer (Col. 4, lines 61-62). Adamko et al. teach that the linear low density polyethylene is a metallocene catalyzed polymer that is highly amorphous and low in crystallinity (Col. 4, lines 30-34). Adamko et al. teach that by using the metallocene catalyst, the compositional distribution throughout the liner is uniform (Col. 4, lines 15-21). Given that the compositional distribution is uniform, the hardness of the film would be consistent throughout the liner and the difference in hardness between the surface and the inner portions of the liner would be minimal, if not zero – thereby proving a film with a low bearing ratio.

3. Claims 5, 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admitted prior art relative to the use of Japan Polyolefins Co. J-REX LL-type and

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Harmorex LL-type resins (see *Polymer Processing Technology*, reprinted from http://www.jpo.co.jp/en/technology/polymer_processing4.html) in view of WO 99/14281.

The Applicants on pages 20-21 of the specification demonstrate the use of a linear ethylene resin (specifically ethylene-1-hexene and ethylene 1-octene copolymers made by Japan Polyolefins Co., LTD. under the product names J-REX LL and Harmorex LL) in forming the claimed end product. It was notoriously well known in the art at the time Applicant's invention was made to use J-REX LL-type and Harmorex LL-type resins to produce release paper as evidenced by *Polymer Processing Technology* (see p. 1). Thus, the Applicant's claimed release liner is fairly suggested by Japan Polyolefins Co.'s disclosure in *Polymer Processing Technology*. Although *Polymer Processing Technology* does not explicitly state that the resin exhibits a specific spin-spin relaxation time or bearing ration, these limitations are implicitly met since identical materials are disclosed.

Polymer Process Technology fails to teach the use of the liner in combination with an adhesive.

It is notoriously well known in the art, however, to use polyethylene/alpha olefin copolymer release sheets for pressure sensitive adhesive release sheets as detailed by WO '281 (see Abstract; p.9, lines 9-27). WO '281 teaches the use of a release liner for a pressure sensitive adhesive for the purpose of providing a protective liner for an adhesive that is thermally stable, tear resistant, and exhibits substantially no shrinking or buckling when exposed to varying temperatures (p. 14, lines 13-16). Thus, it would have been obvious through routine experimentation to one of ordinary skill in the art at the time Applicant's invention was made to have used a polyethylene/alpha olefin copolymer release liner for a pressure sensitive adhesive

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for the purpose of providing a protective liner for the adhesive that is thermally stable, tear resistant, and exhibits substantially no shrinking or buckling when exposed to varying temperatures as taught by WO '281).

Therefore, it would have been obvious to one of ordinary skill in the art at the time Applicant's invention was made to have modified the aforementioned prior art by providing an adhesive layer along with the polyethylene/alpha olefin copolymer release liner as taught by WO '281 in order to provide a protective liner for an adhesive that is thermally stable, tear resistant, and exhibits substantially no shrinking or buckling when exposed to varying temperatures.

Response to Arguments

4. Pursuant to the applicant's amended claims, the examiner has withdrawn the 35 U.S.C. rejection of claim 5 over Adamko et al. (#5,948,517) in view of JP 11-060634 and Freedman (#4,713,273). The examiner agrees with the applicant that it would not have been obvious to select a spin-spin relaxation time (T2) and a ratio of the amorphous region of the copolymer as claimed by the applicant. As posited by the applicant, JP '634 teaches a max T2 time of 10 microseconds and therefore fails to read on the applicant's claimed invention. Adamko et al.'s disclosure alone is not sufficient to render the applicant's claimed physical properties obvious.

5. Applicant's arguments filed June 14, 2004 have been fully considered but they are not persuasive with regards to the teachings of Adamko et al. relative to claim 9 and the teachings of the applicant's admitted prior art in relation to the use of Japan Polyolefins Co. J-REX LL-type and Harmorex LL-type resins (see *Polymer Processing Technology*, reprinted from http://www.jpo.co.jp/en/technology/polymer_processing4.html) in view of WO 99/14281 relative to claims 5, 9, and 10.

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First, the applicant's content that the ethylene copolymer in Adamko et al. is an ethylene-butene-1 copolymer and not a copolymer of ethylene with 1-hexene or 1-octene. The examiner respectfully disagrees. Adamko et al. explicitly teach the use of a copolymer of ethylene and hexene or octene at Col. 2, lines 46-51. Regardless of what the specific example is in Table 1 (as cited by the applicant), Adamko et al. broadly discloses the copolymers as claimed by the applicant.

Second, the applicant's contend that the low bearing ratio of Adamko et al. does not read on the applicant's claimed invention because "too small a bearing ratio would not be useful in the context of the present invention." However, the applicant's claim a bearing ratio of -30 to 15, thereby inclusive of a bearing ratio of zero. As posited by the examiner in the previous office action and in the rejection above, Adamko et al. teaches a uniform compositional distribution and therefore implicitly teaches a bearing ratio of about zero. Therefore, the examiner maintains that the bearing ratio of the material taught by Adamko et al. continues to read on the applicant's claimed invention.

Third, the applicant contends that even if one of ordinary skill in the art would be motivated to use the J-REX LL-type or Harmorex LL-type resins as an adhesive release sheet, the physical properties (i.e., the spin-spin relaxation time and the ratio of the amorphous region) are not disclosed or fairly suggested by the *Polymer Processing Technology* reference. Whether or not the physical properties of the aforementioned materials are taught in the prior art, however, does not render the applicant's claimed invention patentable. Rather, while features of a claimed article may be recited either structurally or functionally, claims directed to an article must be distinguished from the prior art in terms of structure rather than function (see MPEP

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2114). Given the identical material used between the applicant's admitted prior art and the applicant's claimed invention, the physical properties of the prior art substrates would be able to perform in the same manner as the applicant's claimed invention. The burden is upon the applicant to prove otherwise. *See In re Swinehart*, 169 USPQ 226 (CCPA 1971); *In re Schreiber*, 44 USPQ2d 1429 (Fed. Cir. 1997).

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

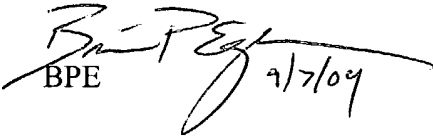
Conclusion

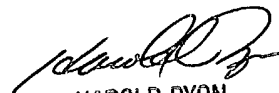
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian P. Egan whose telephone number is 571-272-1491. The examiner can normally be reached on M-F, 8:30-5.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Y. Pyon can be reached on 571-272-1498. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


BPE 9/7/04


HAROLD PYON
SUPERVISORY PATENT EXAMINER
1772

9/9/04